

Butter Fingers

Materials:

- 1 screw-top plastic container or jar
- 1/2 cup of whipping cream
- 1/4 teaspoon of salt (optional)
- Spoon

Instructions:

1. Pour whipping cream into screw-top plastic container. (make sure not to fill more than halfway).
2. Add Salt (if you wish).
3. Make sure you screw the top on tight.
4. Shake for 7-9 minutes or until the cream stops sloshing around and you are left with a yellow blob.
5. Shake for a few seconds longer.
6. Congratulations! You have pure butter.

How it Works:

As you churn whipped cream, you beat droplets of butterfat until they collapse and re-join to form a single blob of butter. This is an example of emulsion, where one liquid hangs suspended in another.

Extra Experiments:

1. If you add a squeaky-clean silver coin in with the cream, is it easier to tell when the butter is done?
2. What if you only shake for 4 minutes? What does the substance seem to turn into?
3. Could you add flavouring? Vanilla extract? Chocolate syrup? Honey? Cinnamon Sugar?
4. Learn about how temperature effects state of matter (solids, liquids and gases). Try cooling the butter, try heating the butter. Can you make it change states of matter by adding or taking away heat?



